



United States  
Department of  
Agriculture

Rural  
Development

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Rural Development TX AN No. 573 (1924)

January 23, 2003

**SUBJECT:** Site Drainage Concerns for 515 RRH Projects

**TO:** All Local Offices  
USDA Rural Development, Texas

**PURPOSE/INTENDED OUTCOME:**

This AN is intended to provide guidance to borrowers and project Architects in criteria for selection of project sites, with specific emphasis on site drainage.

**COMPARISON WITH PREVIOUS AN:**

This AN replaces TX AN No. 383 (1924) which expired on September 30, 1994.

**IMPLEMENTATION RESPONSIBILITIES:**

There have been serious site drainage problems observed at various 515 project sites in the past. Unusually wet winters can increase the problems. Care must be taken when selecting potential sites.

Numerous USDA Rural Development (RD) Instructions address the requirements concerning drainage of sites. The Local Office should advise borrowers of the following: RD 1944-E, Exhibit A, warns against agreeing to purchase a site without consulting with the RD servicing official; RD 1944-E, Exhibit A, IV, B, 9, c, states that drainage and the use of property surrounding the site must be considered during the pre-application phase of a project; RD 1924-A, Guide 2, 301, warns against site surroundings and unusual risks from natural hazards, including flooding; RD 1924-A, Guide 2, 304, discusses concentrating run-off, minimizing erosion, and designing proper grades; RD 1924-A, Guide 2, 305 discusses drainage in detail; RD 1924-C discusses the planning of site development work. These Instructions should be reviewed before site selection is made.

There are two major drainage concerns; on-site drainage and off-site drainage onto the site. When a good portion of a site is covered with concrete slabs, such as building foundations, drives and walks, the amount and characteristics of surface run-off are changed dramatically. Consideration must be given as to how this affects the natural flow of surface water. State law makes it illegal to divert runoff on to a downstream landowner at a point other than the natural watercourse.

**EXPIRATION DATE:**  
December 31, 2003

**FILING INSTRUCTIONS**  
Following RD Instruction 1924-A

When practical, sites should not be approved if they occur in a 100 year flood plain. This is not always feasible, because some whole communities are in flood plains. If sites do occur in a flood plain, they must be given special treatment to mitigate drainage problems. Sites that are very close to a flood plain must be carefully studied by the developer's Architect or Engineer for potential drainage problems before approval can be given.

Gently sloping sites are the easiest to develop without encountering unmanageable drainage problems. The most difficult sites to properly develop are flat sites. Steeply sloping sites present erosion problems. Observance of existing on-site vegetation will offer an indication of potential water problems. Reeds and water plants obviously represent near wetlands conditions.

Every site submittal must include a drainage plan for review by Rural Development and local authorities for approval. This plan must include topography of site showing contour lines, both existing and finished. Arrows should be used to indicate direction of drainage. If there is evidence that there may be a potential drainage problem, the applicant will be required to provide a drainage study and report performed by a Civil Engineer or a Hydrologist. The report must include recommendations for necessary corrective measures.

During the submittal review process, care must be taken to ensure that the Architect has properly sited the buildings, and that they are high enough above adjacent grades to prevent water intrusion and to allow adequate drainage. All drainage must be routed away from building foundations, mailbox locations, accessible parking, etc.

Special care must be taken during the construction of the project to ensure that all buildings and drives are being installed at the proper elevations. The Architect or Engineer must certify that all buildings and drives are installed as per plans and specifications. If it appears that there is still a problem, and that the Architect's certification may be in error, the contractor should be required to re-shoot selected grades and verify elevations while the Rural Development representative is on the site.

If you have any questions regarding this AN, contact Quincy Berlin, State Architect, at (254) 742-9794.

*/s/ Bryan Daniel*

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State Director